

## 中華民國專利公報 (19)(12)

(11)公告編號：349992

(44)中華民國88年(1999)01月11日

發明

全2頁

(51)Int.Cat.: C09K3/18

C08L5/00

(54)名稱：熱塑型樹脂表面用防霧劑及防霧性熱塑型樹脂片

(21)申請案號：84110460

(22)申請日期：中華民國84年(1995)10月05日

(72)發明人：

吉岡修二

日本

(71)申請人：

戴西爾化學工業股份有限公司

日本

(74)代理人：賴經臣先生

1

2

## [57]申請專利範圍：

1.一種熱塑型樹脂片表面用之防霧劑，含有：

- a)蔗糖脂族酯混合物，
- b)塗層成形親水性高分子化合物，及
- c)D-花楸醇，

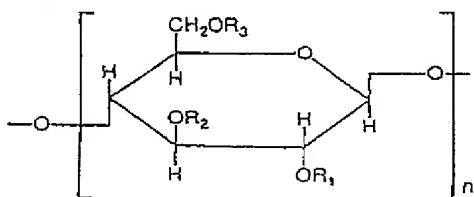
其中成份(c)為基於100重量份之成份(a)及(b)總量之1至15重量份之量存在，成份(a)對成份(b)之重量比率為20-80:100，成份(c)所含蔗糖月桂酸酯所佔之莫耳率不少於50%，及

成分(b)係由蛋白質、澱粉、聚丙烯酸、聚丙烯酸鈉、聚丙烯醯胺、聚氧化乙烯、聚乙稀四氫吡咯酮、聚乙稀醇、聚乙稀醯胺、聚胺、海藻酸、海藻酸鹽、羧甲基纖維素、羥乙基纖維素及羥丙基纖維素所組成之群中選出者。

2.如申請專利範圍第1項之熱塑型樹脂片表面用之防霧劑，其中該蔗糖脂族酯與該塗層親水性高分子化合物之混合比率為20至80重量份，此乃基於100重量

份之該親水性高分子化合物而計。

3.如申請專利範圍第1項之熱塑型樹脂片表面用之防霧劑，其該親水性高分子化合物為具有下列結構式之羥乙基纖維素：



式中R<sub>1</sub>、R<sub>2</sub>及R<sub>3</sub>各代表(CH<sub>2</sub>CH<sub>2</sub>O)<sub>m</sub>H (其中m代表0或以上之整數，其限制條件為R<sub>1</sub>、R<sub>2</sub>及R<sub>3</sub>不能同時皆為H)；而n代表1或以上之數目。

4.一種防霧性熱塑型樹脂片，含有如申請專利範圍第1及3項中任一項之防霧劑塗佈於樹脂片之至少一側面。

20. 5.如申請專利範圍第4項之防霧性熱塑型

(2)

3

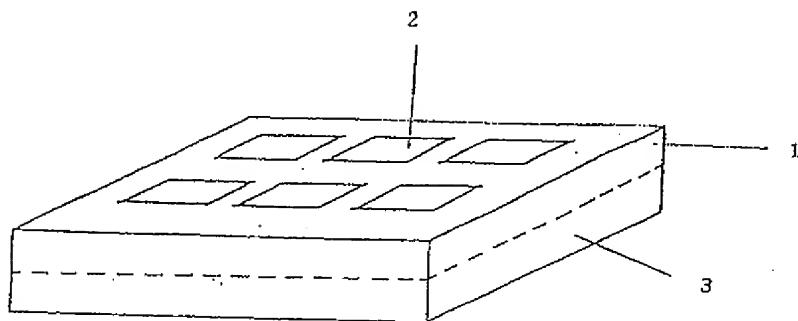
4

樹脂片，其中該防霧劑之塗佈量依據固體內容物計算為  $0.01$  至  $2\text{g/m}^2$ 。  
圖式簡單說明：

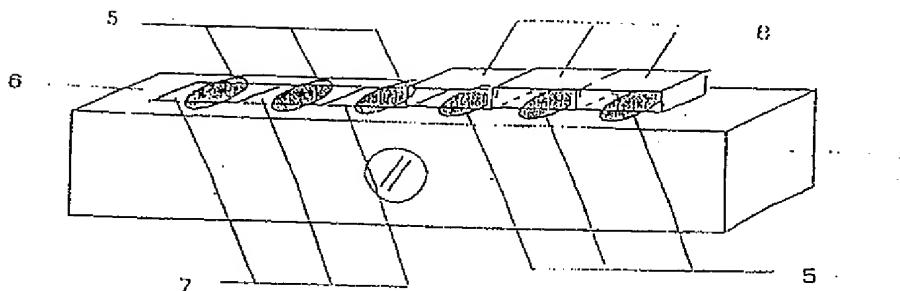
裝置。

第二圖描述為評估高溫防霧特性之裝置。

第一圖描述為評估低溫防霧特性之

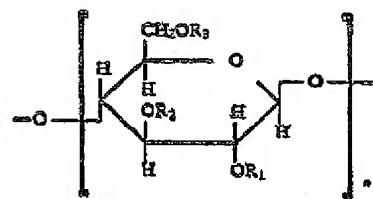


第一圖



第二圖

1. An anti-fogging agent for the surface of a thermoplastic resin sheet, comprising:
  - a) a mixture of a sucrose aliphatic ester,
  - b) a coat-forming hydrophilic polymeric compound, and
  - c) D-sorbitol,wherein the component (c) is presented in an amount of 1 to 15 parts by weight based on 100 parts by weight of the total amount of component (a) and (b), the weight ratio of component (a) to (b) is 20-80 : 100; a sucrose lauric ester contained in component (c) is in a molarity of not less than 50%, and  
the component (b) is selected from the group consisting of protein, starch, polyacrylic acid, sodium polyacrylate, polyacrylamide, polyethylene oxide, polyvinyl pyrrolidone, polyvinyl alcohol, polyvinylamide, polyamine, alginic acid, alginic acid salt, carboxymethylcellulose, hydroxyethylcellulose and hydroxypropylcellulose.
2. The anti-fogging agent for the surface of a thermoplastic resin sheet according to claim 1, wherein the mixing ratio of said sucrose aliphatic ester to said coat-forming hydrophilic polymeric compound is from 20 to 80 parts by weight based on 100 parts by weight of said hydrophilic polymeric compound.
3. The anti-fogging agent for the surface of a thermoplastic resin sheet according to claim 1, wherein said hydrophilic polymeric compound is hydroxyethylcellulose having the following structural formula:



wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> each represent (CH<sub>2</sub>CH<sub>2</sub>O)<sub>m</sub>H (in which m represent an integer of from 0 or more, with the proviso that R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are not H at the same time); and n represents a number of 1 or more.

4. An anti-fogging thermoplastic resin sheet, comprising an anti-fogging agent according to any one of claims 1 and 3 applied to at least one side surface of a resin sheet.
5. The anti-fogging thermoplastic resin sheet according to claim 4, wherein the coated amount of said anti-fogging agent is from 0.01 to 2 g/m<sup>2</sup> as calculated in terms of solid content.